BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvements to Roads and Drains at Chikkavenkatappa Layout,
Estimated Cost : Rs. 55.00 Lakhs
Head of Account : P-3726 Zonal Public Works - POW Works
Job Code: 013-23-000012
Name of Agency: Sri Subba Reddy K.V, No. 106/8, Aswathanagar, RMV 2nd Stage, Bangalore - 560094.
Work order No: BMP/EE/BTP/WO/160/2022-23 D: 13-03-2023.

	Measurements Recarded on :	29-03-2023							
Sl No	**Description of work**	**Mesurement**						**Qty.**	**Unit**
		No.	**L**	**B1**	**B2**	**Av.B**	**D**		
2	Providing, laying and spreading available soil in the embankment on a prepared surface, pulverising, mixing the spreaded soil in place with Soil stabilisor with 2% of slaked lime using Binder spreader Machine having minimum content of 70% of CaO, grading with the motor grader and compacting with the road roller at OMC to the desired density to form a layer of improved embankment. (By Mechanical Means.								
	For Road Work								
	5th Main Road Deshabandunagara From Cross Road	1	15.00	4.40	4.60	4.50	0.45	30.38	
		1	15.00	4.60	4.35	4.48	0.45	30.21	
		1	15.00	4.35	4.30	4.33	0.45	29.19	
		1	15.00	4.30	4.10	4.20	0.45	28.35	
		1	15.00	4.10	4.10	4.10	0.45	27.68	
		1	15.00	4.10	3.90	4.00	0.45	27.00	
		1	15.00	3.90	4.00	3.95	0.45	26.66	
		1	14.00	4.00	4.20	4.10	0.45	25.83	
								225.29	Cum

Assistant Engineer
Ward No. 13, Doddabommasandra

Assistant Executive Engineer
Vidyaranyapura Sub-Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Assistant Engineer

Contractor

Assistant Executive Engineer

Sl No	Description of work	Mesurement No.	L	B1	B2	Av.B	D	Qty.	Unit
	Measurements Recarded on :	06-04-2023							
3	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.								
	New Drain								
	5th Main Road Deshabandunagara E/S	1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	10.50			1.00	1.00	10.50	
	5th Main Road Deshabandunagara W/S								
		1	15.00			1.00	1.20	18.00	
		1	15.00			1.00	1.20	18.00	
		1	15.00			1.00	1.20	18.00	
		1	10.40			1.00	1.20	12.48	
	Chikkavenkatappa Layout								
		1	15.00			1.50	1.20	27.00	
		1	15.00			1.50	1.20	27.00	
		1	10.00			1.50	1.20	18.00	
	Culvert								
	5th Main Road Deshabandunagara	1	5.50			1.40	1.00	7.70	
	Desilting of Drain								
	5th Main Road Deshabandunagara W/S from Cross Road to New Drain	1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.60	5.40	
		1	16.50			0.60	0.60	5.94	
	Chikkavenkatappa Layout inside Play area	1	15.00			0.90	0.60	8.10	
		1	15.00			0.90	0.60	8.10	
		1	8.00			0.90	0.60	4.32	
	For Road Work								

Assistant Engineer

Contractor

Assistant Executive Engineer

Assistant Executive Engine
Vidyaranyapura Sub Divisio

Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
	5th Main Road Deshabandunagara From Cross Road	1	15.00	4.40	4.60	4.50	0.20	13.50	
		1	15.00	4.60	4.35	4.48	0.20	13.43	
		1	15.00	4.35	4.30	4.33	0.20	12.98	
		1	15.00	4.30	4.10	4.20	0.20	12.60	
		1	15.00	4.10	4.10	4.10	0.20	12.30	
		1	15.00	4.10	3.90	4.00	0.20	12.00	
		1	15.00	3.90	4.00	3.95	0.20	11.85	
		1	14.00	4.00	4.20	4.10	0.20	11.48	
	For Rain Water Pit								
	Chikkavenkatappa Layout	2	3.142x1.5x1.5				3.30	11.66	
			4						
	Total							**458.13**	Cum

Assistant Engineer
Ward No. 13, Doddabommasandra

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Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
	Measurements Recarded on :	03-05-2023							
4	Providing and laying in position Plain Cement Concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications.								
	New Drain								
	Bed Concrete								
	5th Main Road Deshabandunagara E/S	1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	10.50			1.00	0.15	1.58	
	5th Main Road Deshabandunagara W/S								
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	10.40			1.00	0.15	1.56	
	Chikkavenkatappa Layout								
		1	15.00			1.50	0.15	3.38	
		1	15.00			1.50	0.15	3.38	
		1	10.00			1.50	0.15	2.25	
	Culvert								
	5th Main Road Deshabandunagara	1	5.50			1.40	0.15	1.16	
	Bed Concrete for Rising of Bed								
	5th Main Road Deshabandunagara W/S from Cross Road to New Drain	1	15.00			0.60	0.30	2.70	
		1	15.00			0.60	0.30	2.70	
		1	15.00			0.60	0.30	2.70	
		1	15.00			0.60	0.30	2.70	
		1	15.00			0.60	0.30	2.70	
		1	15.00			0.60	0.30	2.70	
		1	15.00			0.60	0.30	2.70	
		1	15.00			0.60	0.30	2.70	
		1	16.50			0.60	0.30	2.97	
	Chikkavenkatappa Layout								
	inside Play area SSM Drain	1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	8.00			0.90	0.15	1.08	
	Total Qty							**67.74**	
	Qty upto 125%							**60.00**	Cum
	Qty Above 125%							**7.74**	Cum

Assistant Engineer

Contractor

Assistant Executive Engineer

Assistant Executive Engineer
Vidyaranyapura Sub Division

Sl No	Description of work	Mesurement No.	L	B1	B2	Av.B	D	Qty.	Unit
	Measurements Recarded on :	14-06-2023							
5	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately)								
	New Drain								
	Raft								
	5th Main Road Deshabandunagara E/S	1	15.00			0.90	0.15	2.03	
	CRFC	1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	10.50			0.90	0.15	1.42	
	5th Main Road Deshabandunagara W/S								
	CRFC	1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	10.40			0.90	0.15	1.40	
	Chikkavenkatappa Layout								
	CRFC	1	15.00			1.25	0.15	2.81	
		1	15.00			1.25	0.15	2.81	
		1	10.00			1.25	0.15	1.88	
	Culvert								
	5th Main Road Deshabandunagara	1	5.50			1.30	0.20	1.43	
	Side Wall								
	5th Main Road Deshabandunagara E/S	2	15.00			0.15	0.60	2.70	
	CRFC	2	15.00			0.15	0.58	2.61	
		2	15.00			0.15	0.59	2.66	
		2	15.00			0.15	0.58	2.61	
		2	15.00			0.15	0.61	2.75	
		2	15.00			0.15	0.58	2.61	
		2	15.00			0.15	0.61	2.75	
		2	15.00			0.15	0.62	2.79	
		2	10.50			0.15	0.60	1.89	
	5th Main Road Deshabandunagara W/S								
		2	15.00			0.15	0.89	4.01	

Assistant Engineer

Contractor

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Vidyaranyapura Sub Division

Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
		2	15.00			0.15	0.90	4.05	
		2	15.00			0.15	0.88	3.96	
		2	10.40			0.15	0.91	2.84	
	Chikkavenkatappa Layout								
		2	15.00			0.15	0.90	4.05	
		2	15.00			0.15	0.89	4.01	
		2	10.00			0.15	0.90	2.70	
	Culvert								
	5th Main Road Deshabandunagara	2	5.50			0.30	0.65	2.15	
								85.14	
	Total							**85.12**	Cum

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M.D. Subba Reddy

Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
	Measurements Recarded on :	14-06-2023							
6	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.								
	5th Main Road Deshabandunagara E/S								
	10 mm dia		1741	2.10	3656.10	0.62		2266.78	
	8 mm dia		18	130.50	2349.00	0.39		916.11	
	Total							**3182.89**	
	5th Main Road Deshabandunagara W/S								
	10 mm dia		739	2.10	1551.90	0.62		962.18	
	8 mm dia		18	55.40	997.20	0.39		388.91	
	Total							**1351.09**	
	Chikkavenkatappa Layout								
	10 mm dia		534	2.90	1548.60	0.62		960.13	
	8 mm dia		27	40.00	1080.00	0.39		421.20	
	Total							**1381.33**	
	RCC Drains Grant Total							**5915.31**	
	Culverts								
	5th Main Road Deshabandunagara								
	16 mm		74	2.40	177.60	1.58		280.61	
	12 mm		40	5.50	220.00	0.89		195.80	
	Total							**476.41**	
	RCC Culvert Grant Total							**476.41**	
								6391.72	**Kgs**
								6.39	**Tonnes**
								6.38	**Tonnes**

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B.B.M.P, Bangalore - 97

Assistant Engineer

Contractor

Assistant Executive Engineer

Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
	Measurements Recarded on :	22-06-2023							
8	Construction of Dry Lean Cement Concrete Sub- base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm,aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, cement content not to be less than 150 kg/ m3 , optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 t vibratory roller, finishing and curing.								
	CC Road								
	5th Main Road Deshabandunagara From Cross Road	1	15.00	4.40	4.60	4.50	0.15	10.13	
		1	15.00	4.60	4.35	4.48	0.15	10.07	
		1	15.00	4.35	4.30	4.33	0.15	9.73	
		1	15.00	4.30	4.10	4.20	0.15	9.45	
		1	15.00	4.10	4.10	4.10	0.15	9.23	
		1	15.00	4.10	3.90	4.00	0.15	9.00	
		1	15.00	3.90	4.00	3.95	0.15	8.89	
		1	14.00	4.00	4.20	4.10	0.15	8.61	
	Total							**75.10**	Cum

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Vidyaranyapura Sub Division
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M.V. Subba Reddy

Sl No	Description of work	Mesurement No.	L	B1	B2	Av.B	D	Qty.	Unit
	Measurements Recarded on :								
	BOREWELL								
12	Geophysical investigation at site for sinking borewells for supplying drinking water to the habitation either through the Hand Pump MWS or P.W.S.S, by vertical electrical sounding by adopting Venner or Schlumbergers's method, including reconnaissance survey of geological formation. Geophysical investigation of existing ground water in the vicinity, its quality, quantity and acceptability of the users, indicating the location of the site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instruments and accessories to work site, engaging technical personal and labour required etc. NOTE: 1)Additional rate on item 1&2 is allowed for drilling in over burden and fixing Casing pipes beyond 20 M (for fixing Casing pipes only) a)Above 20 M and upto 30 M - 15%, b) Above 30 M - 30% (Measurement of overburden is restricted to the depth of casing pipe fixed excluding initial depth of 20M and projection above ground level). 2)A sum of Rs. 100/- is to be deducted for Dry Borewell towards yield test								
	Doddabommasandra RR School Road near KK Compound	1						1	Each BW
13	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern upto 20 m. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete								
	Doddabommasandra RR School Road near KK Compound								
	0 to 50 m	1	50.00					50.00	Mtrs
14	50 to 100 m	1	50.00					50.00	Mtrs
15	100 to 150 m	1	50.00					50.00	Mtrs
16	150 to 200 m	1	50.00					50.00	Mtrs
17	200 to 250 m	1	50.00					50.00	Mtrs
18	250 to 300 m	1	52.00					52.00	
	Qty Limited to	1	50.00					50.00	Mtrs
19	300 to 350 m		Not Executed						
20	Supply of ISI mark 175mm nominal bore,plain and steel casing pipe grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest ammendments, electrical resistance welded steel tubes, material and conforming to IS 1387-1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5-7m both ends.threaded conforming to IS 554-1985 one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes all shall be responsibaly free from defects. The tubes shall be responsible straight end should be with ISI marking weighing 25.10kg/m.prices include Collar - Medium duty.								
	Doddabommasandra RR School Road near KK Compound	10	6.00					60.00	Mtrs
21	Providing 250mm dia PVC Pipe 6kg/cm								

Assistant Engineer

Contractor

Assistant Executive Engineer

Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
	Doddabommasandra RR School Road near KK Compound	3	6.00					**18.00**	Mtrs
22	Providing and fixing Borewell Cap & Clamp Set								
	Doddabommasandra RR School Road near KK Compound	1						**1**	Set
23	Providing,supplying to work site, Submersible Pump Set of 150mm dia suitable for bore well and confirming to IS 8034-2000;3Phase, SS Bowl & Impeller with Low volt Motor as per specifications, as per necessary ammendments and instructions of engineer incharge of work **12.50 HP - 90 LPM @ 264 m = 24 STG Outlet Dia - 2.00**								
	Doddabommasandra RR School Road near KK Compound	1						**1**	No
24	Providing, Laying and Fixing GI pipes conforming to IS 1239:1990 with latest amendments complete with GI fittings (excluding the cost of fittings) with cuts and threads wherever necessary, including testing for water tightness, with all lead and commissioning. (contractor will make his own arrangements for procuring water for testing) **Medium Duty GI pipe of 50mm dia**								
	Doddabommasandra RR School Road near KK Compound	42	6.00					**252.00**	
								250.00	Mtrs
25	Providing wrought mild steel (galvanized) 50 mm dia GI collar confirming to IS 1239-II, 1991 with latest amendments if any.								
	Doddabommasandra RR School Road near KK Compound	1	42					**42**	Nos
26	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments 50 mm								
	Doddabommasandra RR School Road near KK Compound	1						**1**	Nos
27	Supply and delivery at site brand new best make starter/ control panel suitable for following HP centrifugal pump confirming with ISI mark and its latest amendments 10 to 120 HP centrifugal pump								
	Doddabommasandra RR School Road near KK Compound	1						**1**	Nos
28	Submersible Cable 1x3x6.0 Sq.mm								
	Doddabommasandra RR School Road near KK Compound	2	30.00					60.00	
		2	30.00					60.00	
		2	30.00					60.00	
		2	30.00					60.00	
		2	30.00					60.00	
		2	30.00					60.00	
		2	30.00					60.00	

Assistant Engineer Contractor Assistant Executive Engineer

Assistant Executive Engineer

Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
		2	30.00					60.00	
		2	30.00					60.00	
		2	12.00					24.00	
								564.00	
								560.00	Mtrs
29	Labour charges for Erection of new / repaired submersible pump set along with GI pipes (32mm / 50mm), cable (New submersible pump set if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (Each length = 6 m)								
	Doddabommasandra RR School Road near KK Compound	1	42					**42**	Job
30	Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws.,								
	Doddabommasandra RR School Road near KK Compound	1						**1**	Each
31	Providing, Supplying and fixing suitable for 1.1 KV class UG cable filled with necessary bitumen / insulating compound complete with terminals, clamps, bolts, nuts and washers etc. with necessary materials and labour tools and equipments as per instructions of engineer incharge of work.**3½x6 Sqm**								
	Doddabommasandra RR School Road near KK Compound	1	30.00					**30.00**	Mtrs
32	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.								
	For Cutting Road Surface	1	30.00					**30.00**	Mtrs
33	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV								
	40mm dia GI pipe	1	4.00					**4.00**	Mtrs
39	Earth work excavation for pipeline trenches in all kinds of soils by mechanical means above 600 mm trench width as per drawing and technical specifications, including setting out, construction of shoring, strutting, barricading, caution lights, bracing, using sight rails & boning rods at every 100 mm whevere necessary as directed, removal of stumps and other deleterious matter, dressing of sides and levelling the bottom of trench to the extent required , utilising the available excavated earth locally for the work etc., and all other appurtenances complete in the following strata. **All kinds of soils. Depth upto 1.50 m**								
	KK Compound	1	30.00			0.45	0.60	8.10	
		1	30.00			0.45	0.60	8.10	
		1	22.00			0.45	0.60	5.94	
	Venugopalswamy Temple Road	1	18.00			0.45	0.60	4.86	
	6th Cross Venkatagiriyappa Layout	1	30.00			0.45	0.60	8.10	
		1	6.00			0.45	0.60	1.62	
								36.72	

Assistant Engineer

Contractor

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Sl No	Description of work	Mesurement No.	L	B1	B2	Av.B	D	Qty.	Unit
								24.30	Cum
40	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 m3 in volume and stock piling at designated locations and disposal of dismantled materials and stacking serviceable and unserviceable materials separately								
	CC Road								
	Poojari Narayanappa Layout	1	30.00			0.45	0.25	3.38	
		1	10.00			0.45	0.25	1.13	
		1	20.00			0.45	0.25	2.25	
								6.75	
								6.75	Cum
41	Providing and installing at site of work P.V.C. pipes including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour charges and all lift charges, handling charges including encasing the pipe around to a depth not less than 15 cms with gravel or selected earth available from the excavation etc. complete., 75mm(weight of pipe - 0.917 kg								
	75 mm dia 6 KSC PVC pipe								
	KK Compound	1	30.00					30.00	
		1	30.00					30.00	
		1	22.00					22.00	
	Venugopalswamy Temple Road	1	18.00					18.00	
	6th Cross Venkatagiriyappa Layout	1	30.00					30.00	
		1	6.00					6.00	
	Poojari Narayanappa Layout	1	30.00					30.00	
		1	10.00					10.00	
		1	20.00					20.00	
								196.00	
								150.00	Mtrs
43	Supply and delivery at site of brand new best make gate valve as per IS 778/1984 with ISI Mark and as per its latest amendment Size 65 mm								
	KK Compound	2						2	
	Venugopalswamy Temple Road	1						1	
	6th Cross Venkatagiriyappa Layout	1						1	
		1						1	
	Poojari Narayanappa Layout	1						1	
								6	
								5	Each
	EIRL								
E1	Removing and resetting of footpath slab (Approved arrival rate)								
	Drain Covering Slab								
	5th Main Road Deshabandunagara W/S from Cross Road to New Drain	1	7.25				0.90	6.53	
		1	10.60				0.90	9.54	
		1	10.60				0.90	9.54	

Assistant Engineer

Contractor

Assistant Executive Engineer

Assistant Executive Engineer
Vidyaranyapura Sub Division

Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
		1	4.80				0.90	4.32	
		1	9.50				0.90	8.55	
		1	11.20				0.90	10.08	
		1	12.00				0.90	10.80	
		1	4.90				0.90	4.41	
		1	8.50				0.90	7.65	
								71.42	
								71.25	Cum
E2	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)								
	SSM Wall								
	Chikkavenkatappa Layout Gym Eqt Play area	2	15.00			0.45	0.50	6.75	
		2	15.00			0.45	0.50	6.75	
		2	8.00			0.45	0.50	3.60	
	Total							**17.10**	Cum
E3	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite / trap / basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately **Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate**								
	Drain Vent Conrete								
	5th Main Road Deshabandunagara W/S from Cross Road to New Drain	1	15.00			0.60	0.20	1.80	
		1	15.00			0.60	0.20	1.80	
		1	15.00			0.60	0.20	1.80	
		1	15.00			0.60	0.20	1.80	
		1	15.00			0.60	0.20	1.80	
		1	15.00			0.60	0.20	1.80	
		1	15.00			0.60	0.20	1.80	
		1	15.00			0.60	0.20	1.80	
		1	16.50			0.60	0.20	1.98	
	Chikkavenkatappa Layout Gym Eqt Play area								
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	8.00			0.90	0.15	1.08	
	Flagging Course Coping Concrete								
	5th Main Road Deshabandunagara W/S from Cross Road to New Drain	2	15.00			0.15	0.10	0.45	
		2	15.00			0.15	0.10	0.45	
		2	15.00			0.15	0.10	0.45	
		2	15.00			0.15	0.10	0.45	
		2	15.00			0.15	0.10	0.45	

Assistant Engineer

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Vidyaranyapura Sub Division

Assistant Executive Engineer

Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
		2	15.00			0.15	0.10	0.45	
		2	15.00			0.15	0.10	0.45	
		2	15.00			0.15	0.10	0.45	
		2	16.50			0.15	0.10	0.50	
	Chikkavenkatappa Layout Gym Eqt Play area								
		2	15.00			0.45	0.15	2.03	
		2	15.00			0.45	0.15	2.03	
		2	8.00			0.45	0.15	1.08	
								30.74	Cum
E4	Providing and constructing load bearing wall with Solid Concrete blocks of size 400x150x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications.								
	Flagging Course								
	5th Main Road Deshabandunagara W/S from Cross Road to New Drain	2	15.00				0.20	6.00	
		2	15.00				0.20	6.00	
		2	15.00				0.20	6.00	
		2	15.00				0.20	6.00	
		2	15.00				0.20	6.00	
		2	15.00				0.20	6.00	
		2	15.00				0.20	6.00	
		2	15.00				0.20	6.00	
		2	16.50				0.20	6.60	
								54.60	Sqm
E7	Stone Aggregate (Single size) : 40 mm nominal size								
	Rain Water Racharging Pits	2	3.142x1.2x1.2				1.00	**2.26**	Cum
			4						

Assistant Engineer
Ward No. 13, Doddabommasandra

Assistant Executive Engineer
Vidyaranyapura Sub-Division

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Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Assistant Engineer

Contractor

Assistant Executive Engineer